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PERCEPTIONS OF NUCLEAR WAR

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AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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AIR WAR COLLEGE
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PERCEPTIONS OF NUCLEAR WAR

by

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A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: Perceptions of Nuclear War

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Mutual deterrence has been the keystone of U.S. nuclear strategic policy with respect to the Soviet Union. But for mutual deterrence to be viable, the perceptions of nuclear weapons and nuclear war must be shared by both nations. There are currently many misconceptions in the West about Soviet views of nuclear war. These misconceptions have been reinforced over the years by Soviet public pronouncements. Through an examination of the mindset of the Soviet people, Soviet doctrinal literature, and Soviet offensive and defensive systems, this paper provides compelling evidence for the way the Soviet Union really perceives nuclear war.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Nick Alexandrow received a Bachelor of Arts degree in Physics from Rutgers University, New Jersey and a Master of Science degree in Nuclear Engineering from the University of Virginia. He has spent most of his Air Force career in the nuclear effects field. He was assigned to the Air Force Nuclear Criteria Group Secretariat, where he was responsible for developing nuclear hardening levels for Air Force space systems. He also served on the Air Staff and in the Office of the Secretary of Defense as the resident nuclear weapons effects advisor. He is a graduate of the Armed Forces Staff College, and of the Air War College, class of 1987.

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CHAPTER I

INTRODUCTION

> When I was a kid, ... I converted my Ping-Pong table into a fallout shelter. Funny? Poignant? A nifty comment on the modern age? Well, let me tell you something. The year was 1958, and I was scared. Who knows how it started? Maybe it was all that CONELRAD stuff on the radio, tests of the Emergency Broadcast System, pictures of H-bombs in *Life* magazine, strontium 90 in the milk, the times in school when we'd crawl under our desks and cover our heads on practice for the real thing. ...my dreams would be clotted with sirens and melting ice caps and radioactive gleamings and ICBMs whinning in the dark.
>
> Tim O'Brien, "The Nuclear Age" (1:9)

Since the first atomic bomb was detonated over the desert of New Mexico on July 16, 1945, the world has had a love-hate relationship with nuclear weapons. At first, many were awed by the power of the new weapon, and Americans were grateful when its use saved lives by hastening the end of the war with Japan. Next came enthusiastic acceptance in the West as a U.S. monopoly assured security against aggression by the Soviet Union following World War II. However, when the Soviets also obtained the "bomb", and more importantly, developed the means to deliver it as far as the continental United States, awe and acceptance turned to fear. Then, as both U.S. and Soviet nuclear arsenals grew, fear turned to rejection and near hysteria as global annihilation was predicted and even expected.

As U.S. perceptions of nuclear weapons and nuclear war changed over the years, so did U.S. nuclear war-fighting strategy and military force development and deployment plans.

Since 1945, U.S. national strategy has been to " contain Soviet overt aggression or subversion against our vital interests..." through the "basic defense strategy " of deterrence. (2:27) Deterrence, therefore, has been and is the keystone of U.S. nuclear strategy vis a vis the Soviet Union. But deterrence is almost entirely based upon perception, or as AF Pamphlet 200-17 states: "Deterrence is a state of mind that depends both on the existence and appearance of power, as well as the enemy's perception of

that power" and "The enemy must be convinced that such power is real, that there is the will and resolve to use it against him, and that it will be effectively applied". Therefore, for deterrence to work, both the United States and Soviet Union must share the same perceptions about the effects of nuclear weapons and nuclear war and about each other's capabilities and intentions. If the perceptions are not the same, then the validity of the deterrence doctrine may be in doubt. Consequently, it is important that, in the development of national strategy and military force structure in support of deterrence, Soviet perceptions and intentions are properly recognized and understood. This is not a new idea. A few years ago, the Scowcroft Commission stated that:

> Deterrence is the set of beliefs in the minds of the Soviet leaders, given their own values and attitudes about capabilities and will. It requires us to determine, as best we can, what would deter them from considering aggression, even in a crisis.(2:38)

This paper examines Soviet psycho-social history, relevant writings, and most importantly their actions, with emphasis on the evolution of their offensive and defensive capabilities to gain an insight into probable Soviet perceptions about nuclear issues. This paper also discusses selected U.S. actions or policies for comparison, because, as Christoph Bertram noted in Hamburg's Die Zeit, "Deterrence is only credible if it frightens the adversary more than it does one's own population". Even more relevant is the quote from Sun Tzu's the Art of War:"If you know the enemy and know yourself, you need not fear the result of a hundred battles" .

CHAPTER II

BACKGROUND

A very commonly held axiom is that "perception has nothing to do with reality". If this is in fact true, then what is perception based on? What molds it? How does it come to differ from reality? And where do perceptions about nuclear weapons and nuclear war come from? This chapter focuses on the unique aspects of nuclear weapons that make them susceptible to emotional rather than rational perception.

Nuclear weapons and nuclear war are admittedly highly complex subjects. However they are also tangible. They are based on exact sciences in that their effects can be analyzed and quantified. The problem of perception comes into play most likely because only a small minority of the populations on both sides of the iron curtain are able to adequately understand how nuclear weapons work. An even smaller minority can authoritatively discuss the consequences of their use. In addition, there are still many questions that no one can answer, and almost all of these tend to arouse "open-ended" fears in the uninformed. (3:217)

The tremendous destructive power of nuclear weapons over that of conventional ones, and the somewhat incomprehensible effects of radiation add to this image. For example, a nuclear weapon of the same physical size as a conventional bomb can produce a thousand times the explosive destruction. In addition to this blast power, there are other less dramatic but no less lethal effects. First there's the thermal flash, which can cause third degree burns on exposed skin at twice the distance away from the point of detonation at which the blast destroys buildings. It can cause blindness at ten times the distance. Then there are the invisible, unfelt, and delayed effects caused by radiation, directly from the explosion or from the fallout which can cover areas in a wide plume a hundred or more miles downwind from the explosion. This radiation can degrade or destroy electronic equipment. It can contaminate food

supplies and make large land areas inaccessible for years. Human exposure to this radiation can cause some very unpleasant injuries such as nausea, loss of hair, skin ulcers, destruction of the immune system, internal bleeding, and death. The sinister aspect of radiation is that, except at the very high levels of exposure, most of the biological effects do not occur immediately but gradually over time. And contamination cannot be detected except by specialized instruments.

Finally, there are the really "black magic" effects, electro-magnetic pulse (EMP), scintillation, and ionization. While these are non-threatening to man, they can wreck havoc with man's machines, computers, radios, telephones, in fact with all unprotected electronics and communications systems. (4:15-26)

Because these effects of nuclear weapons are totally incomprehensible to most people in America, the wildest fantasies have been made up about them (witness the science fiction movies of the 1950's and 1960's and even today). And because they don't understand them, many Americans don't believe that anyone else really understands them either.

In the United States, there are no educational programs about nuclear effects available to the population. But even if they were available, it is doubtful that many Americans would want to learn. This is because of a lifetime of being told of the evils of anything nuclear. As a result, the American population lacks a realistic basis for the perception of nuclear weapons and allows perception to be affected by other factors, like the entertainment media.

In the Soviet Union, the situation is quite different, as the next chapter will discuss.

CHAPTER III

ORIGINS OF PERCEPTION

Today, most perceptions and attitudes concerning nuclear weapons appear to fall into one of three basic categories: 1) unqualified rejection of everything having to with nuclear weapons and nuclear war; 2) qualified rejection of nuclear weapons as useful for any purpose except to deter their use by others; or 3) qualified acceptance of nuclear weapons or resignation to their continued existence and possible use. (3:221) It appears that many Americans' attitudes fall into the first two categories, while, as this paper will show, those of most of the Soviet leaders and population fall into the third.

A first step into gaining an insight into why there exist these seemingly large differences in perception is to examine those factors that have probably had the most effect in molding them.*

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*As a preface to this discussion, an important caveat is warranted here. While researching factors that affect American perceptions is fairly straightforward, the same is not true in the case of the Soviets. Most Western analysts begin with a tremendous disadvantage in attempting to do so. First, they have to work with a closed and highly controlled society. All policy deliberations and decisions are cloaked in secrecy or, at the very least, in ideological jargon. Public writings or pronouncements, especially those made after the early 1970's when the Soviets began to appreciate the attention these were receiving in the West, are suspect since all publishing and other media are strictly and jealously controlled by the State. (5:3) Very little that is not specifically produced for internal or external propaganda is allowed public expression. (6:14) As columnist John Patrick Walsh put it, "Soviet press and broadcast media are simply intruments of the Politburo". (7:28) Writings by Soviet dissidents and emigres can shed some light on the true nature of the Soviet mindset, however, sometimes their views are tainted by the fact that they have rejected some or all of those values of the population that are of interest in the context of this analysis. In other words, their views must be taken in the context that each may have some "ax to grind". Secondly, Western analysts, in trying to interpret Soviet actions cannot help but to do so within the framework of their own values and mindset. The result is often an explanation how and why a Westerner would view or do something and not necessarily the way a Soviet would. The popular term for this is "mirror -imaging". And finally and most importantly, conclusions about the mindset of the Soviet population may not be relevant because of the authoritarian nature of the Soviet society where the perceptions, motivations, and actions of the leadership are the only ones that count. The Soviet leadership has become elitist by choice, and though they come from the same cultural past, they have shared few of the day-to-day experiences of the average Soviet citizen.

If perception can be thought of as an individual's view of reality colored by a mindset based upon that individual's living experience and upon the cultural history of his society (8:132), then it should come as no surprise that American and Soviet perceptions of nuclear issues should differ significantly. As the following discussion will illustrate, there are probably no two dominant societies on earth today that have such dissimilar histories, cultures, value systems and forms of government as do the United States and the Soviet Union.

Soviet Cultural History

The dominant features of Russian life since the 9th century, when the first cohesive Russian state was formed, have been a nearly constant state of chaos brought about by frequent internal and external conflict, an elitist, authoritarian rule, and repression of the population. This history has played a major role in molding today's Soviet conceptions of power, security and attitudes toward military power. It has also resulted in the formation of a wide cultural separation between the rulers and the ruled, with each possessing with their own particular mindsets and perceptions.

The Russian State had its start when scattered tribes united under a strong leader for mutual security. From this beginning, subsequent Princes and Tsars of Russia have sought to obtain, enhance, and sustain centralized command of all forces - social, economic, and military. At the same time, they have also promoted and, in some instances, legislated a huge gulf between themselves and the rest of the population. Popular sovereignty was an unknown notion. Power was exclusively and jealously held by a small elite group whose members were related by blood or by strong personal ties. In other words, " the rulers ruled and the rest served". The people were obliged to accept this because a strong government could bring about social order and physical and economic security, which they desperately sought in light of their bloody and

unfortunate history.

Up through the sixteenth century, Russia was constantly engulfed in war after war for its survial. Before the thirteenth century, there were over forty wars with the Tartars, in addition to hundreds of raids during the era of the Mongol domination. Later, during the time that Europe was experiencing the Renaissance and the Reformation, there were at least forty wars each with the Lithuanians, the Germans, and with Swedes, Bulgars and others. In between these wars, there was almost ceaseless fighting between the principalities into which the country was divided. At least ninety of these have been documented between the thirteenth and sixteenth centuries. In addition to war, disease, especially the Black Death, ravaged the population continually. (9:1-78)

With the advent of the seventeenth century, the nature of the wars changed.

> The seeker of patterns in Russia's historical development could reasonably argue that before the 1600s the growth of the principality of Moscow and the expansion of the Tsarist state were essentially defensive in nature, necessary to consolidate power and territory and to secure Russia's borders against a host of enemies on three sides. But after 1600, it is harder to maintain that the additions to Russia's lands were primarily for self-protection. The Tsars now appeared more interested in aggrandizement, power for the sake of power, and territories that would benefit Russia economically. Moreover, prior to the seventeenth century the state annexed lands that were predominantly inhabited by other Russians ... Yet in the 1600s and after, most of the peoples who fell under Russian rule were either distant cousins, ... or not Russian at all.* (9:91)

This marked the beginning of the trend in expansionism that was to characterize Russian and Soviet foreign policies into the twentieth century. (9:91-176)(10:3)

In 1917, the October Revolution, with the help of World War I, totally decimated Russian political, economic and social structure. The Bolshevik rule that followed, whatever its original motives and ideals, only continued the legacy that it inherited

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* This is contrary to the views of some analysts who have tried to justify Soviet militarism, for example, Walter Lippman in 1947, Hans J. Morgenthau in 1970 and Raymond L. Garthoff in 1978. (10:2)(11:37-38)

from the Tsars - authoritarian rule, an elitist leadership, popular repression and a desire for power and domination. (10:3) Once in power, the membership of the Bolshevik Party concerned itself less with the progress and future of socialism than with the need to overthrow its rivals and the consolidation of its own power.

Since the Communists represented only a tiny minority of the Russian people, establishment of dictatorial power was a necessity as was the means of keeping that power - through a strong military and a secret police-cum-palace guard bound exclusively to the leadership, and through censorship, propaganda and indoctrination. (12:ix)

It was only after Lenin felt confident that he had consolidated his power, did he begin to deal with the disasterous economic conditions wrought by his revolution. He began by instituting a temporary relaxation of the effort to communize Russia. But this scared Joseph Stalin, his succesor. Stalin's sense of insecurity and passion for power were too great. Once he and his supporters took over after Lenin's death, they reversed his policies, and therby set the tone of rule that was to continue through the present Soviet leadership. They began "the repressive practices of the party-state [that] has continued for more than three score years...despite the succession of leaders". (12:ix) They insisted on the submission or destruction of all competing power. They allowed no forms of collective human activity or association which would not be dominated by the Party. No other force in Soviet society was to be permitted to achieve vitality or integrity. Only the Party was to have any structure; all else was to be an inert amorphous mass. Ironically, this same principle was eventually to apply within the Party as well. Party members might go through the motions of election, deliberation, decision and actions, but these activities were all totally controlled by the Party leadership and only the leadership's word counted. All who disagreed were eliminated (purged). (13:569)

Partly because all autocrats are egotistical, but also in keeping with the Tsarist tradition they inherited, Stalin and his successors have claimed infallibility and the "divine right" to rule as they please. Consequently, they alone know what is good for society. But conveniently, that good, the utopian communist state, can only be accomplished once their power has been secured and made unchallengeable. All other priorities, including the comfort and happiness of the people have to be sacrificed for this goal. (12:viii) Unfortunately, the nature of the Soviet political structure is such that power consolidation is never seen as completed and the population never sees any substantial relief. Once a leader is deposed, as in the case of Khrushchev, or he dies, as in the cases of Stalin, Brezhnev, Andropov, and Chernenko, the struggle for power begins anew and it continues throughout the reign of the new leader. The two decade long manueverings by Leonid Brezhnev were a prime example of this. (12:115-160)

World War II had a profound effect on Soviet society. Nearly every family lost a member. In fact the Soviet Union sustained over 20 million casualties, more than all the other combatants combined. The role of the Communist Party in the subsequent victory put them firmly in power. Patriotism was revived, and the militarization of society began in this war and has, since then, become a permanent condition.

Characteristics of the Historical Soviet Mindset

The turbulent history of the Soviet Union, combined with the generally hostile climate, really and supposedly hostile neighbors, and a repressive government have resulted in a number of characteristics almost unique to Soviet society.

A very basic one is a strong aversion to risk.

> For centuries a harsh history and climate have eliminated the incautious among them at a rate that has recommended a different approach to survivors. They and their progeny have learned that their political and economic security requires constant attention. Risk assessment has thus become a finely honed skill, a sine qua non for survival. (8:133)

and,

> Any departure from the tradition of a defensive, guarded approach to life meant increasing the chance of a failed harvest, of death at the hands of an invader or maurauder, or, because of a political leader's failure to insure social order, a heightened risk that avarice on the part of some would erase the wafer-thin margin of survival of others. (8:133)

Russians have been willing to reduce risk to a minimum, even at the expense of gain. Consequently, Russians readily identify with the need for the state to be "suspicious, mistrustful, and cautious in its relations with others, demanding a degree of security that intimidates all those around it." (8:134)

A characteristic that is directly related to risk aversion, is an affinity for order and unanimity and a desire for a strong hand at the top. Discipline imposed on the populace is widely accepted and is indeed expected by the people, who generally grumble when it is absent. (8:136) Just as Tsarist rule was accepted as an alternative to the constant instability and chaos that reigned in Russian history, Soviet discipline is now accepted as the price of economic guarantees, civil order, and national security. Recurring disasters, chaos and wars since 1917 have only served to confirm to the Soviet people that a strong and rapidly reacting political structure was just as needed now as it was in old Russia. Even the excesses of Stalin, early in his reign, were forgiven partly because it was his strong leadership that is credited with victory in World War II and the nations subsequent recovery. "In their most admiring moments, Russians praise Stalin as the *krepki khozyain*, the strong master. (14:249) Historic accommodation to discipline has become so ingrained in the Soviet psyche, that their society "as a whole is uncomfortable with the thought of a less controlled social life; freedom is regarded as license, and anarchy is the ultimate evil." (8:134) This need to be directed is not restricted to just the Politburo, is applies as well throughout the hierarchy of the system.

Another characteristic, that derives directly from centuries of elitist and

authoritarian rule, and from the Russians' aversion to risk, is the exclusion of individual initiative in anything in the least related to politics. This has become the central feature in the political behavior of the individual, who historically has been required and has been willing to do only that which the leadership approves. (15:122-133) Or as Hedrick Smith quotes in his book, The Russians:

> Russians [have] gloried in the very thing foreigners criticized them for - blind and boundless devotion to the will of the monarch, even when in his most insane flights he trampled underfoot all laws of justice and humanity.
> Nikolai Karamzin, 19th-century Russian historian (14:241)

Today the Party leadership does all the thinking and makes all the political decisions, and the people obey and follow. Most would not have it any other way. Political involvement or action holds the highest risk in Soviet society. They have enough problems of their own to be bothered with political decisions that have historically been made at levels much above them. Thus today when political problems are discussed, the response is usually, "the *nachalstvo* will take care of it." "Power thus emanates 'from above,' not 'from below'. The party apparatus projects the organized power the Politburo group has gathered to itself and transmits it through a constellation of agencies."(12:viii)

Finally, there is fervent Russian patriotism, which Stalin cleverly ressurected and invoked during World War II to help secure the victory over Hitler and to further legitamize the Communist party. Neither communist ideology, nor the cult of the leadership, neither the threat of terror nor the apparatus of propaganda has proved to be as powerful a motivating force as patriotism. (12:45)

> In an age grown skeptical of undiluted patriotism, Russians are perhaps the world's most passionate patriots. Without question, a deep and tenacious love of country is the most powerful unifying force in the Soviet Union, the most vital element in the amalgam of loyalties that cements Soviet society. That may sound commonplace for other countries which have no proclaimed political ideology. Indeed, before the Revolution, ardent national patriotism was a hallmark of Russia (14:303-304)

Historic Mindset and Nuclear Strategy

Strategic doctrine is dictated by the Soviet leadership, but the means of carrying out the policies, as well as demonstrating the commitment to carry out the policies, falls to a large extent on the shoulders of the population. The significance of the historically acquired mindset is that it has allowed the Soviets to approach the problem of nuclear war from a much different perspective than would be possible in the US, given its different history and resulting mindset. From the psycho-social standpoint, these characteristics increase the confidence of the leadership that their nuclear war policies and preparations will receive the support of the population. From the operational standpoint, these characteristics improve the chances that the population will do what is required, in peacetime and wartime, to increase the chances of their own and the state's survival.

Risk aversion drives the population to extreme conservatism which in turn promotes their tolerance of any sacrifice in the pursuit of security. Like Americans, the Soviet people don't want war. But, history has forced them to look at catastrophic war philosophically and perhaps more pragmatically. War has been forced on them all too often before and therefore may be again. While their attitude toward war can be considered as defensive in nature, it drives them, not to disarm, but conversely, to achieve such overwhelming military superiority over their foes, perceived and real, that they no longer feel threatened. They still remember, and are encouraged by the state to remember, their suffering and tremendous losses in World War II, a war that was forced on them. It was their weakness and unpreparedness, after all, that caused the Nazis to attack and to bring about such destruction. But, while strength leads to deterence, deterrence also entails risk. It could fail. Strong defensive measures and being prepared to fight when necessary reduces this risk.

The people's penchant for discipline plays a major role in Soviet war fighting

strategy. The population's discipline, over and above that of the military forces, is a requirement if war survival and reconstitution is to have any reasonable chance for success. The Soviets have formulated very comprehensive programs for the survival of the leadership, critical industries, and the general population and for subsequent recovery. All are based on the orderliness of the population, on their discipline in properly and promptly carrying out directions, and on their continued respect for authority.

Political isolation on the part of most Soviets assures the leadership of freedom of political action and that their military policy decisions will not be debated, second-guessed or opposed. The population's attitude toward politics is typified by the following statements: "Here, there is simply no identification of the individual with the rulers, with the government." (14:255) "I don't feel shame about what my government does in Czechoslovakia or somewhere else. I am sorry for our society and for others. But I don't feel shame about the government's actions because it is totally separate from me. I feel not connected with it." (14:256) Consequently,the population is politically passive and both resigned and prone to accept their leadership's political actions, even if they may involve them in a nuclear war without them having a say in the matter.

Finally, Russian patriotism is a characteristic crucial to the Soviet leadership in two ways related to war strategy. First, in peacetime it is used to promote the Russians' historic fear and distrust of the outside world, and, at the same time to promote loyalty to the state and "a basic unquestioning confidence in their way of life." (14:311) All provide implicit justification for a myriad of government policies, including the suppression of "imperialist" propaganda and the need for economically exhausting war preparations - the continuation of the draft, high school military training, civil defense preparations, heavy military expenditures, etc. Preparation for fighting a nuclear war, with all its probable devastation and loss of life, is therefore not totally

rejected if it is required for the defense of the homeland. (8:141) And second, it is seen as the ultimate mobilizing force in time of war, even if all the other characteristics, discussed above, fail to do so. When the Soviet party-state could find no other way to unite and motivate the people under their leadership in World War II, they were "carried to safety in that war on a tide of *Russian* patriotism." (12:45) Today, "...the Soviet leadership has quite deliberately tapped the wellspring of World War II to keep Soviet feelings of patriotism live and vibrant." (14:314)

Soviet Lifetime Experience

> Wherever is found what is called a paternal government, there is found state education. It has been discovered that the best way to ensure implicit obedience is to commence tyranny in the nursery.
>
> Benjamin Disraeli, 1874 (16:31)

The historically acquired mindset of an individual can change as a result of that individual's personal lifetime experiences. These experiences can either reinforce his historic or cultural mindset or they can alter it. In the Soviet Union, the state attempts to mold the peoples mindset primarily through the use of formal indoctrination and through use of propaganda in the mass media. The official objective is create the "New Communist Man, the member of the forthcoming communist society." (17:12) The real objective is less idealistic. It is to create a loyal, disciplined, militarized and socialized society that will support the state and its policies and, most importantly, one that will be prepared in the event there is war.

Indoctrination is primarily in form of ideological, military and civil defense education. All three are directly relevant to maintaining control of the population and to improving the prospect of fighting and winning a nuclear war.

Ideology plays two very special roles in Soviet society. First, it provide justification for the leadership to seek and hold power. Historically, the major struggles to secure power have been primarily directed against forces at home, within

the Soviet society itself, and only secondarily against the outside world. The ubiquitous Marxist-Leninist ideology has played a unique role in this regard. Stalin understood that the Bolsheviks' original claim to rule Russia was neither legally justified nor clearly supported by the population. They had no real claim to legitimacy through a line of succession; on the contrary they were usurpers, especially since only a minority of the Revolutionary leaders were ethnic Russians. (14:304) Therefore they tried to make Lenin, who was very popular in his day, into a psuedo-diety and his ideology into a psuedo-religion. Once in power, Stalin, rewrote history as future leaders would subsequently also do, and made himself Lenin's natural and chosen successor. Thus, Marxism-Leninism has become a kind of mythology of Soviet society. Since that time, it has been used for this purpose by Stalin's successors to keep themselves in power and to justify nearly all of their policies. (8:133)

The other major role of ideology is to shape the people's view of themselves, each other, and the outside world. It has been used as one of "the focal point[s] and adhesive[s] of Soviet life, the dedication to which indicates a friend." (8:136) And conversely, rejection of this ideology indicates an enemy, which is the way the Soviet State has tried to portray the capitalist world. The ideology also preaches that conflict with capitalist nations, especially the U.S., is inevitable, and it therby justifies expensive defense programs and psychologically prepares the population for war.

It has been argued that most people see through the obvious distortions in the ideology. However,

> Soviet citizens are indoctrinated with communist theory from the beginning of the socialization process and bombarded throughout life with Marxist-Leninist symbols and ideas. Every public policy is explained and justified in doctrinal terms, and all of this is done to the exclusion of any competing set of ideas. The Soviet people could not possibly remain unaffected in their sentiments by the lifetime habits of thought and speech. (18:38)

As important as the ideological socialization of society, is its militarization. Like

ideology, militarization has been promoted by the Soviet leadership as another means of securing and maintaining its power. The entire direction of the Soviet political strategy since the Revolution has been "to fuse politics and the gun in a manner to ensure survival and furtherance of this fusion." (5:62)

The importance of the military in Soviet society has a basis in history. During the time of the Tsars, a large military was needed to preserve the stability of the nation Later, because of their discipline and efficiency, many military veterans were given administrative posts in the civilian bureaucracy. This persisted until the bureaucracy attained a military outlook. (10:9)

The militarization of the government increased after the Revolution. Since the other promises of Communism failed, the leadership came to rely on its military successes, especially during World War II as justification for its rule. In fact, today, the one most important event in the seventy year history of the Soviet Union was World War II. Soviet propaganda leaves the impression that this war ended in 1985 not 1945. Movies, fiction, holiday celebrations, and social rituals still center on the war. It is the great socializing and mobilizing force that plays on the patriotism of the people against a common foe. It is used to justify all sacrifices on the part of society for the defense of the homeland. (8:141)(14:314)

World War II and the Party's role in the victory over Hitler has been raised to the status of a religious experience. Newlywed couples pay homage at elaborate monuments to the war which are found in nearly every city and where brides lay their wedding bouquets. Young children stand as honor guards at the memorials. Displays, books, posters, movies, plays, etc. abound-all to keep the memory vivid in the minds of old and young. In addition to glorifying the role of the Communist Party, the memory of World War II is used as a patriotic rallying point for the people so that they will not hesitate to fight and survive if threatened. (14:184,316-319)

"But as the memory of that war recedes, the threat of nuclear catastrophe takes on some of the same legitimizing function. Only military power, the regime claims, has deterred the imperialists from unleashing a nuclear war." (10:10) The last great push for the militarization of the entire Soviet population seems to have begun in 1967.

In addition to this political function, militarization also serves a more practical one, it trains the people in discipline, in loyalty, and in the tasks that will be valuable in time of war. Civil defense training is one of the most important of these.

> "... some speculate that the failure of the ABM system made it desireable for the entire population to learn techniques for survival in the event of a nuclear strike, and fear of China and its huge population may have precipitated the new policy." (19:329)

The state organs given the function of indoctrinating the masses are the educational system, the system of political youth organizations and the armed forces.

The educational system "is fully and quite openly used for ideological propaganda, which is blended into every academic curriculum, course of studies, and even individual lesson. In Lenin's words, 'The Soviet school has a political function,' and, therefore, there cannot be any 'petty bourgeois talk about the autonomy of education from politics.'" (20:211) Indoctrination starts in Soviet preschool education and continues throughout the prescribed phases of the educational system.

In parallel to the educational system, there are a number of organizations controlled by the Communist Party, that all youths are expected to "volunterily" join if they want future career advancement or access to higher education. These organizations include the Oktobrists, the Pioneers, Komsomol and DOSAAF, the Volunteer Society for Cooperation with the Army, Aviation, and the Fleet. As they progress through the educational system and the youth organizations, students are more and more exposed to the tenets of Marxism-Leninism: the class struggle, the virtues of patriotism, the evils of individualism and disloyalty, etc. They are also given

basic military and civil defense instruction and impressed with the need to prepare for later military activities and service and obedience to the state. The following quote from *Red Star* in 1972 perhaps best illustrates the Soviet philosophy for early military indoctrination:

> A wise saying confirmed in the lives of many generations says it exactly - people are not born soldiers, they become soldiers. Whether in war or peacetime, military labor requires a great expenditure of effort from a person. And this is why the formation of a soldier is not easy. And it should not begin at the moment when the new recruit is enlisted into the ranks, but much earlier, at the time of the first signs of maturity, during the time of adolescent dreams. (21)

The armed forces are probably the most important institution for indoctrination, both ideological and military. The Soviet leadership places great importance on the need for all males to spend some time in the armed forces, where they can receive intensive indoctrination in Party principles and military duties Conscription is universal in the Soviet Union, therefore, virtually the entire Soviet male population serves in the armed forces at one time or another. (19:320)

Political control and indoctrination in the military is vested in the Main Political Administration (MPA). This is the commisar or political officer system which, like many other Soviet institutions, has its roots in Tsarist Russia. A direct extension of the Party leadership, the MPA's function is to "socialize both the ranks and the officer corps into the political ethic of the Party." (5:10) It thus serves to insure the ideological loyalty of the military and to dispense "Party patronage, a clever mechanism for coopting the military and ensuring an identity of political-military interests." (5:10) Advancement in the military, as in political office, depends on political loyalty as much as on military expertise. As a result, a senior military officer's career is closely connected to the Party and its wishes.

Supervision and control of the military by the Soviet political leadership is also conducted through the Committee for State Security (KGB) Third Directorate. The KGB

informant network penetrates all the ranks of the military. It possesses its own chain of command and reports directly to the Party. It even has its own communications systems that are totally independent of the military ones. Because of the control structure consisting of the MPA and KGB, there appears to be no way that the military can somehow be independent or a rival of the main political leadership, as has often been suggested. (5:11)

The result of having gone through the Soviet educational system, the youth organizations, and military service, a Soviet citizen, especially a male citizen, has been fully indoctrinated in Marxist-Leninist Ideology, the virtues of discipline, obedience, and loyalty to the leadership, the evils of individualism and the outside world, and has received training in military and civil defense skills that will be necessary in time of war. On top of this, the military careerists have been politicized and the civilian hierarchy has been militarized.

As the above discussion demonstrates, the mindset of the average Soviet is an amalgam consisting of historically and socially acquired characteristcs which has been molded by ideological and military indoctrination and propaganda. The result is that the average Soviet citizen has a perception of nuclear weapons and nuclear war that differs tremendously from that of the average American citizen. This perception is probably best summed up by the following statement made by a young modern resident of Leningrad to an American living in the Soviet Union:

> That there will be war. Inevitably. ... We young Russians live with that assumption now. ...But we believe we can win. ... What you Americans don't realize is that we'll win because we're not afraid to sacrifice everthing for winning. We lost twenty million people in the Second World War, but we beat the Germans. And that spirit of sacrifice still exists - the government has made sure to keep it alive in all of us. Mention the war and people still weep and shake their fists. They grieve, but they're ready to do it again. We are ready, too, in our economic life. Everything - everything - goes into the military. That's why life is so bad here. ...
>
> Yes, we will win, because, if you don't mind my saying so, America is decadent. I'm not saying this because I've been taught to; I'm speaking from my own perceptions. ... You're soft. And so we'll win... (22:75-76)

CHAPTER IV

SOVIET NUCLEAR DOCTRINE AND STRATEGY

This chapter examines Soviet perceptions of nuclear weapons and nuclear war as exemplified by their nuclear doctrine and strategy.

The Soviets have devoted a great deal of attention to the study and elaboration of military doctrine. Unlike in the United States, where this is done by government civilians or by analysts in civilian "think tanks" such as the RAND Corporation or the Institute for Defense Analysis, in the Soviet Union, the formulation of military doctrine and strategy is exclusively within "the purview of the professional military establishment." (19:349)

In the Soviet Union,

> Military doctrine is the Party's guide to the strategic structure and future of the military. It is the intellectual and policy framework which informs war planning and guides force acquisition. Once pronounced by the Party it provides the authority for more specific planning and establishes the armament norms and weapons acquisition policies for the armed forces. (5:23)

An important characteristic of Soviet doctrine is its remarkable stability and consistency over the years. This is very likely a direct result of the high degree of continuity of the Soviet leadership. In the years between Stalin and Gorbachev, there have really only been two Soviet administrations, Khrushchev's and Brezhnev's. Andropov and Chernenko were basically Brezhnev's people and were not in power long enough anyway to have made much impact. (5:21)

Soviet doctrinal and strategy concepts have routinely been "presented in a host of journals and books that steadily pour out of the Ministry of Defense's military publishing house 'Voenizdat'," and, most importantly, in classified publications such as the General Staff's [Journal] 'Voenaya Mysl' (Military Thought)." (23:58) Top secret writings contained in this journal, called a "Special Collection of Articles" began to be published in 1960. These where passed to the West by Colonel Oleg V. Penkovskiy before

his arrest by the KGB in 1962. They have since been published in the West as "The Penkovskiy Papers".

This chapter uses these military publications either directly or uses their analyses by Western experts* as the major source for the discussion of Soviet strategic nuclear doctrine and strategy. Writings, available to the general Soviet public, or official statements by party or government officials are not given much credibility because, in general, they are meant to serve "simultaneously as an ideological guide and a justification for state policy." The only exceptions to these are selected open publications written before the early 1960s, before the Soviets recognized that they were receiving too much Western attention and began issuing them, from then on, for propaganda. The classified military writings, themselves, are probably only valid up to about the late 1970s, when their unclassifed translations began appearing openly in the West. These have since become inaccessible or worthless. (24:3)

Background

The United States emerged from World War II an economic and military world power, the latter primarily by virtue of its sole possession of the atomic bomb. However, U.S. strategic doctrine was slow in adjusting to the implications of the new weapon. The U.S. was intent on demobilizing its conventional forces after the war and saw the atomic bomb primarily as a cheap way of maintaining its security and military superiority. It wasn't until January, 1954 that the first official enunciation of a strategic doctrine of any kind was made. This came during a speech made by the then secretary of state John Foster Dulles in which he first used the term "massive retaliation" in the context of reinforcing local overseas defenses to deter Soviet

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* For example, John J. Dziak, Joseph D. Douglass Jr. and Amoretta M. Hoeber, Leon Goure', Keith B. Payne, Harriet Fast Scott, et al.

aggression there. This doctrine was based largely on fiscal constraints, and was seen as the only affordable way to support the policy of containment against the Soviet Union. (25:29-85)

When the Soviet Union developed, first the atomic bomb, then the hydrogen bomb, and then the means to deliver these, U.S. thinking about nuclear weapons changed, as did U.S. doctrine and strategy. The main thrust was still deterrence, but now American leaders had to deal with the consequences of a Soviet capability to attack the United States. The avoidance of another world war, especially one in which the United States itself could be attacked, was seen to be equal to, if not more imortant then, preventing the expansion of Communism. (25:10) In fact, it has been argued that the resulting U.S. perception of nuclear war as unwinnable, precluded any serious attempt to develop either a war-fighting strategy or appropriate strategic defensive and offensive systems, and that "deterence tended to become the only meaningful objective of strategic nuclear forces...." (26:602) Furthermore, history has shown that U.S. nuclear strategy has been primarily reactive in nature: to Soviet increases in strategic power, to budgetary constraints, to congressional whims and to constantly changing cost-benefit analyses. (27:566-595) (26:596-610) (28:13-25)

Like the U.S., the Soviet Union emerged from World War II a new military power. But, unlike the United States, is was a regional one based on the might of its huge land armies that were built up during the war. Soviet military doctrine, at this time, was still based on Stalin's concept developed in 1941, of "five permanently operating factors" which decide the fate of war: the stability of the rear, the morale of the army, the quantity and quality of divisions, the armament of the army, and the organizing ability of the command personnel. (29:108) Whichever side in a war was superior in these factors would be victorious. The advent of nuclear weapons did not, at first, change this doctrine, at least while Stalin was alive.

Soviet View of Nuclear Weapons

Soviet strategic doctrine quickly advanced, however, during the 1950s after Stalin's death, and proceeded in quite a different direction from that of its American counterpart. An examination of Soviet sources and specific Soviet weapons development programs during that decade shows that, contrary to the view they were trying to promote in the West, Soviet the political-military leadership understood the revolution brought about by nuclear weapons and new delivery systems.

First of all, they did not see nuclear weapons as anything extraordinary, but rather, they considered them as only another evolution of military hardware that had occurred for years. They continued to conceive their role in much more intimate relation to conventional armed forces than has been typical in the West. (30:33)

Second, they recognized that the value of nuclear weapons was primarily in the fact that their great increase in destructive capabilities would result in decisive strategic results being attained quickly and directly to determine the outcome of a war. Likewise, they firmly rejected the U.S. view of nuclear weapons as "absolute" weapons which, by themselves, decided the victor in a war and that deterrence was the only valid way of exploiting them. (31) (5:16-19)

And third, in the Soviet view, the introduction of nuclear weapons did not make war impossible nor did it invalidate the established Soviet thinking that war was related to politics. In this context, the Soviets firmly disclaimed that nuclear war would be suicidal for both sides. The Western contention that there would only be losers in a war and that, as a result, war had ceased to be an instrument of policy was rejected by Soviet military theorists. (32:129) On the contrary, they saw nuclear conflict as an inevitable and natural process of international political relations. (32:140) And, "for Soviets, war and the associated doctrine and strategy, constituted supremely political acts conducted for political purposes." (5:2)

The preceding does not mean that the Soviets envisaged a strategic war from which they can come away totally unharmed. They realistically acknowledged that a great deal of destruction could be inflicted upon the Soviet Union. "Rather, the Soviets have a concept of victory that includes regime maintenance [leadership survival], recovery and reconstitution, and the destruction of U.S. war-waging potential as the immediate essential criteria for victory." (32:127) They also stressed that nuclear war would require the total commitment of the people, comprehensive defensive programs, and the use of conventional forces. (33:188)

Soviet literature in this area is compelling and extremely consistent and is supported by later force structure developments. It is also important to note that there is no evidence of later official opposing schools of military thought in this area. It has remained amazingly constant over the years and appears to be the predominant view today. (24:1-5)

Nuclear Doctrine and Strategy

The Soviets themselves have identified three stages in the development of their nuclear doctrine. The first ended with Stalin's death in 1953. The second ended in 1960 and involved the formulation and consolidation of the various nuclear concepts that were being examined during the 1950s. The stage which continues into the present began with the official confirmation of the "new nuclear doctrine" at the 22nd Congress of the CPSU on October, 1961. (5:23-24)

The folowing paragraphs summarize the major tenets of Soviet military doctrine and strategy that have evolved since the 1950s, as gleaned by a number of U.S. analysts from Soviet political-military literature and analyses in the years between 1960 and the early 1980s.

Nuclear war, though dangerous and unpredictable, is nevertheless still a

continuation of politics as war has always has been. "Soviet military thought has been based on the Clausewitzean-Leninist dictum that politics drives all and that war is an extension of politics." (5:17) The late Marshal Sokolovskiy, former Chief of the Soviet General Staff, wrote that "politics is the reason, and war is only the tool, not the other way around." (33:14)

Because it is an instrument of politics, nuclear war is always possible and must be realistically planned for. "The Soviet government...and the armed forces must be ready primarily for world war... under conditions of the mass use of nuclear weapons by both belligerent parties." (33:88-195) "However, victory in a future war will not come by itself. It must be thoroughly prepared for and assured." (33:209)

While a nuclear war would clearly involve enormous destruction, it is winnable and would not be the end of the world. Nations would recover if proper preparations were made beforehand. The preparation to fight, win, and survive a nuclear war is the most important task of Soviet military strategy. (24:2)

Nuclear war with the West would "be a total war that would be pursued with the most decisive aims..." (24:2) It would not necessarily start with massed nuclear missile exchanges, but could escalate to total war from lesser conflicts - either conventional or tactical nuclear. But it would do so quickly. It is interesting to note that the Soviets do not distinguish between tactical and strategic nuclear war. To them these terms are categorizations that are related to aims rather than locations. (24:8)

Military doctrine is by definition offensive, since this is the most effective means to bring about the quick defeat of the enemy. (5:27) In view of the immense destructive forces of nuclear weapons and the extremely limited time available to take effective countermeasures, the launching of the first massed nuclear attack acquires decisive importance for winning. (24:36)

The primary objective of military force development is achieving and

maintaining a clear and dominant superiority in nuclear forces. (24:46)

> Creating the advantage over the enemy in this weapon [nuclear] and methods of its use is the most important task in the building up of the armed forces in peacetime as well as during the course of a war. (33:242)
>
> The most important and decisive factor is the question of which side will be able to achieve both a quantitative and qualitative preponderance of forces over those of the adversary. (34:79-80)

Also, the Soviets see no value in deterrence if it is not backed up by a superior war-fighting capability. (32:129)

The importance of nuclear forces as a deterrent to a possible Western attack on the Soviet Union was recognized by the Soviet leadership from the start. The growing superiority of the Soviet strategic force of the later years was seen essentially as a deterrent to U.S. and Western responses to its own military and political offensives. (6:13) As Paul Nitze stated, "The deterrent mission is primarily to deter the American deterrent." (35:196) But, while deterrence is desireable, it can fail. The mutual assured vulnerability concept of the U.S. is firmly rejected as being too risky. One side or the other may attain a technological breakthrough which would allow it to destroy its opponent's retaliatory forces in a first strike. Therefore, it would be "folly to leave the homeland gratuitously vulnerable to nuclear attack. ... No country can base a credible deterrent on the threat of nuclear war if it accepts that such a war would be suicidal." (32:128) An important point is that, unlike the case in the United States, the Soviet percpective of deterrence "focuses upon military dimensions of strategic forces," and their capability to wage and win a nuclear war, rather that on concepts of mutual restraint and fear of war. (32:144)

The Soviets, in general, believe that a nuclear war will be short, concluding after a massive exchange. In fact, this is a major objective of their strategy. However, they also recognize that a protracted war is also possible, increasing the need for conventional forces to ensure victory. (5:27-28) This requirement for strong

conventional forces, however, is probably a recognition that if a nuclear war begins the Soviets will have to fight with the countries that surround them, especially the Peoples Republic of China.

In war, the Soviet military forces will have a number of objectives. The first is to prevent a surprise attack on the Soviet Union by prevention or preemption; both resulting in the destruction of the enemy's weapons before they can be launched. (24:10,98) The major purpose of these attacks would be to limit the damage an enemy can inflict on the Soviet Union.

> The preponderat base of evidence in the Soviet literature designed for internal use calls for their striking first against the West with maximum surprise when the situation calls for war and when factors are in the Soviet favor. (24:106)

A corollary to this is the Soviet recognition that their nuclear forces may have to be launched on tactical as well as strategic warning. The second objective is to insure that reserve forces survive for a follow-on strike in the event that the first strike has not terminated the war. These reserve forces include the more traditional ones such as submarine launched ballistic missiles (SLBM) and mobile missiles, and, as some analysts believe, a reload and refire capability for the ICBM force. (24:65) The third objective is to bring about the total defeat of the enemy.

> The CPSU considers it essential to maintain the defensive might of the Soviet state and the combat readiness of its armed forces at a level ensuring the decisive and total defeat of any enemy who dares attack the Soviet homeland. (36:88)

Soviet targeting policy is primarily counterforce, however to the Soviets this also includes targeting more than just the enemy's nuclear forces. Soviet literature continually refers to total defeat of the enemy's forces as well as his means of continuing to fight as the main objective of war. For example:

> In modern warfare, military strategy has become the strategy of missile and nuclear strikes in depth along with simultaneous use of all branches of the armed forces in order to achieve complete defeat of the enemy and the destruction of his economic potential and armed forces throughout his entire territory; such war aims are to be accomplished within a short period of time. (37:93)

And,

> The targets for destruction will now include not only and not so much armed forces deployed in theaters of military operation, but in the first instance the economies of the belligerents which are the material basis for the conduct of the war, the strategic offensive nuclear weapons deployed outside of military theaters, the system of government and military control and the main communications centers. (33:242)

The Soviets also do not distinguish between the levels of nuclear use. Their discussions of "strategic nuclear operations emphasize the unconstrained employment of nuclear weapons pursuant to the attainment of military objectives. Very limited nuclear use in the sense of a demonstrative show of will does not appear to be part of Soviet strategic planning." (32:136)

Soviet literature stresses that defense of the rear is just as important as offensive action. In a nuclear war, victory means that, though damaged, the Soviet union continues to function politically, economically, and militarily after the initial exchange and recovers in a reasonable amount of time after all enemy forces have been destroyed or defeated. (5:28) As Soviet Chief of Civil Defense, Colonel-General A. Altunin stated:

> ... on the state of civil defense, on the psychological and special preparation of the population for defense against weapons of mass destruction, on the timely execution of the entire complex of practical measures for the protection of the population and of the economy - on all these factors will depend in a large measure the course as well as the outcome of the war itself, and the further viability of the entire state. (37:6)

Thus, the Soviet Union's nuclear doctrine and strategy appear to have been focused in a single direction from the start. Both were directed primarily at deterring the West from attacking the Soviet Union or using the threat of attack to control Soviet actions, and at fighting, winning and surviving a nuclear war if the course of events required it. Throughout Soviet literature there is the recognition that nuclear weapons are extremely devastating, however, nowhere do that Soviets state that this has made the use of nuclear weapons prohibitive. The emphasis instead has been on how best to deal with nuclear war if and when it occurs.

CHAPTER V

SOVIET ACTIONS

This chapter examines Soviet actions, with respect to their relations with the West and in terms of the the evolution of their strategic nuclear forces, to gain another insight into their perception of nuclear weapons and their use in war.

Strategic Deception

One reason for the Soviets maintaining their World War II doctrine, addressed in the previous chapter, has been attributed Stalin's personal attachment to it as its author. But a more likely reason was that, in the Soviet perspective, it was still applicable in view of the conditions that prevailed at the time. Right after World War II, the United States had a monopoly of atomic bombs and strategic delivery vehicles and the Soviets faced a U.S. that was hostile to its political moves and attempts to exploit East European unrest. U.S. forces were stationed around virtually the entire periphery of the Communist world, from Germany in the West, through the Middle East, and as far as Korea and Japan. Stalin therefore needed some type of deterrent to get the Soviet Union safely through a period in which it was vulnerable to U.S. strategic power. (28:28)

Since the Soviets did not yet have nuclear weapons, Stalin minimized their significance. (30:33) Instead, he first emphasized the Soviet Union's superiority in land forces and in the people's morale, and then, he threatened to invade Western Europe if the U.S. pursued its containment policy through war. (28:29) This marked the first use of the Soviet version of deterrence strategy, which basically was to deter the U.S. from using its nuclear arsenal to stop the Soviet Union from doing whatever it wanted to do. This was also the beginning of the Soviet engagement in "deliberate, systematic, and sustained strategic deception against the West" that Stalin's successors

would continue in an attempt to affect the strategic nuclear balance in their favor.

The unopposed Communist actions in Poland, Hungary, Romania, Bulgaria, and the Baltic countries confirmed to the Soviets the validity of this strategy until the U.S. surprised them by intervening in the Berlin blockade and in Korea. (28:29) Soviet actions thereafter became more cautious, but only as long as the U.S. had the nuclear advantage.

Until they attained a nuclear force of their own, the Soviets began to approach the problem of deterring the West from a new aspect. This was to attack one of the "five permanently operating factors" of the West - the stability of its rear, in other words, the psycho-social element of their adversaries' power, their national will. To this end, the Soviet Union began to encourage and promote anti-nuclear peace movements in Western Europe and in the United States in an attemot to create a wedge in the U.S.-European alliance and to pressure the governments to soften their resistance to Soviet adventures and to give up the further development of nuclear forces. (18:79)

This began a pattern the Soviet Union would follow again and again later, to either stop the development of circumstances which were threatening to them or to buy time while they caught up in some area of force structure or technology. The Soviets continued to use propaganda and disinformation in their deception policy to great advantage during the cold war years and thereafter. Deception has historically been accepted by the Soviet Union as " a tactical maneuver permissible in dealing with the enemy"-to quote Lenin. (38:570)

Because, at the same time he was deemphasizing the value of nuclear weapons and promoting anti-nuclear feelings in the West, Stalin embarked on a crash program to develop his own capability. This culminated in the Soviets exploding their own first atomic bomb in August, 1949, and their first thermonuclear device in August of 1953, only months after the U.S. tested its own. (6:17)

Soviet public declarations during the 1950s seemed to be obsessed with the fear of a surprise attack by the U.S. Some of this may have been due to some genuine underlying concerns rooted in military history primarily World War II. But "the Soviet strategic force posture did not reflect that concern." And "the Soviet leadership may have felt that the probability of such an attack was quite low" due to the failure of the U.S. to use nuclear weapons during the Korean War, as well as during the other confrontations it had with the Soviets. Therefore, it is more probable that the primary purpose was an attempt to slow down the rate of U.S. strategic force deployment by making it appear that the U.S. strategic advantage was already sufficient, and to generate internal momentum for their own strategic developments. (6:31)

Another attempt at deception resulted in the so-called "bomber gap". U.S. intelligence estimates showed that the Soviets would achieve quantitative bomber superiority by the late 1950s. In reality, Soviet bomber production had slowed in favor of ICBM development, and the large increases in the U.S. B - 52 fleet had put the U.S. firmly ahead numerically. But the Soviets encouraged and even magnified the false impression of their bomber superiority through public statements as well as by circling the same bomber squadron many times over the 1955 air show crowds. (6:18)

The next major use of deception resulted in the "missile gap". Again U.S. intelligence projected that the Soviet ICBM force would exceed that of the U.S. by the late 1960s. In fact, John F. Kennedy had pressed the issue of this "missile gap" during his campaign for the presidency. But the Soviets had experienced technical problems and had delayed ICBM deployment. Where Khrushchev wanted the U.S. to believe that Soviet missiles were being mass-produced, the reality was that only about a handfull per year were being deployed. (39:176) Ironically, both the "bomber gap" and "missile gap" deceptions only spurred the U.S. to increasing the pace if its nuclear force deployments.

In the late 1960s, there occurred a remarkable change in Soviet public pronouncements about the value of the "mutual assured destruction" concept as a basis for deterrence. Whereas before, Khrushchev claimed that an attack on the Soviet Union would result in many more deaths on the attacker side, he now said that both sides would lose and that the consequences for mankind might be catastrophic. This theme was introduced by the Soviet military publicist, General Nikolai Talensky in a famous series of debates in open Soviet literature about the validity of Soviet doctrine for nuclear war. (6:79)

Many Western analysists have, since that time, taken this event to be concrete evidence that the Soviets were never in fact serious about fighting a nuclear war, and that all previous doctrinal statements were deception. In their view, this was the first indication that the Soviets were "maturing" in their nuclear thinking. (32:138) However, the opposing and more credible explanation is that this series of debates was orchestrated by Khrushchev for Chinese and Western consumption. First of all, it was unprecedented then, and still is, that such drastically opposing and supposedly candid views would be allowed public airing. Secondly, there has been no corresponding debate in the classified military literature that has since become available to the West. (28:100-117) And thirdly, the progress and nature of the Soviet nuclear force buildup did not change with this supposedly new policy. If anything, the Soviets improved further improved their first strike counterforce capability.

As most Western analysts now see this event, its purpose was two-fold: to scare the Chinese at a time when Sino-Soviet relations were on a serious decline; and, most importantly, to convince the U.S. that a kind of strategic balance existed so that the U.S. would not accelerate its own weapons buildup and thereby put the Soviets further behind at a time when they seemed to be catching up. (6:79-98)

Soviet strategic deceptive pratices have continued, some more subtle, some less

so. But all attempts at deception have been aimed at deterring U.S. action until the Soviet Union achieved what its leaders determined to be an adequate margin of superiority in the correlation of forces.

Detente', for example, had its beginning as early as 1963 during a period of continuing U.S. superiority and ended after the Soviet Union had achieved "parity" with the U.S. The Soviets agreed to detente' and subsequently signed the Atmospheric Test-ban Treaty only after their efforts to affect or to "circumvent U.S. strategic superiority by bluff and by short-cut method had been thwarted." (6:179) The real weakness of the Soviet strategic position was revealed by the Cuban missile crisis. Thereafter, Soviet attempts to contain the development of U.S. strategic systems were undertaken primarily through a series of arms limitation agreements.

In 1972, the Soviets pushed for an Anti-Ballistic Missile (ABM) Treaty and gave the impression that they might have finally agreed to the principle of mutual assured destruction. They "argued that a large-scale deployment of ABM's might encourage an aggressor to launch a first strike and that the agreement prevented a dangerous spiraling race in new offensive and defensiveweapons systems. (40:77) In fact, the Soviets were having technical problems with their ABM program and also were not sure of its continuing effectiveness in light of the new U.S. ICBM Multiple Independently Targetted Reentry Vehicles (MIRV) and penetration aids being deployed.

While the U.S. eventually gave up the one ABM system it had deployed, history has shown that the Soviets have continued to pursue the development and improvement of theirs and are now apparently poised to deploy a nation wide system. This was another case where the Soviets argued against a more technologically advanced U.S. system until their own technology allowed them to develop their own. (41:xv,xvi) The current Soviet campaign against the Strategic Defense Initiative (SDI)

appears to be a repeat of the history of the ABM Treaty.

As this short history of Soviet strategic deception has shown, the Soviet leadership has successfully used this policy to alternately threaten, placate and deceive the West about its nuclear strength and its view of nuclear war, while never themselves deviating from their own established perceptions, discussed earlier, nor from their own goal of strategic superiority.

Early Soviet Strategic Force Developments

As stated in a previous chapter, Soviet military strategy from the beginning of the nuclear age was to achieve a sufficient strategic nuclear superiority over the West so that, from their point of view, deterrence of the U.S. was credible, and nuclear war-fighting possible if this deterrence failed. The direct objective in the structuring of Soviet military forces and operations has been officially declared to be the destruction of hostile military forces. The course and pace of Soviet force structure developments until the present have confirmed this interpretation of their intentions. Any apparent deviations from this track, at the time, were later recognized to be due to technical problems or political necessity.

Once the Soviets settled on their particular view of the nature of nuclear weapons and "had a reasonably clear vision of the requirements demanded by nuclear war... [they] went about finding solutions in a rather straight-line fashion," without the emotionalism and confusion that seemed to characterize the nuclear strategy debates in the United States. (5:16) "The early 1970s witnessed the appearance of some of the major Soviet strategic program results emanating from..." the major doctrinal and strategic positions developmed immediately before and during the 1960s. (5:3)

At the time Stalin died in March, 1953, the United States had a large force of medium range bombers and the overseas bases to support them, as well as the beginnings of an air refueling capability. Soviet Union, on the other hand, had only a

limited stock of atomic bombs and no viable means to deliver them. Within a few years,however, they had developed two heavy bombers, the four-turbojet Bison and the multi-turboprop Bear. (6:17) They had also made a major breakthrough in their missile program, resulting in the launching of Sputnik in 1957. Because of the lead time involved, this program must have been started under Stalin at about the same time the U.S. program had come to a virtual halt. (5:12)

The straightforwardness of subsequent Soviet nuclear force developments is probably best exemplified by their ICBM programs. The Soviets almost immediately recognized the superiority of intercontinental ballistic missiles (ICBMs) in terms of weapon delivery time and survivability. Consequently, they pursued the development of ICBMs, even at the expense of strategic bomber production, which left them vulnerable to U.S. superiority in that regime for a longer time than would otherwise have been the case.

At the same time, U.S. ICBM development was hampered by both Service parochialism and lack of a sense of urgency. (26:23) The U.S. Air Force had a "distaste for weapons systems that did not look or perform like aircraft, and more seriously, which must prove competitive with the most favored Air Force instrument, the long range bomber." (26:24) The Army preferred the ICBM because it "more closely resembled long-range artillery ordinance (also ballistic) than it did an aircraft." But the Army ICBM program had run into technical and fiscal problems and as a result was not seen as an urgent defense requirement. (26:23) The Soviet launch of Sputnik, of course, shocked the U.S. out of its complacency and the development of the ICBM in the U.S. was greatly accelerated.

The Soviet ICBM program did not proceed smoothly however, in spite of their space launch successes. They were forced to delay and eventually cancel the development of their first generation missile while they proceeded in the development

of the second generation system. This, of course, put them at great nuclear force disadvatange. But the Soviets never deviated from their course of trying to achieve ICBM superiority. They instead decided to compensate for this by using strategic deception, as discussed earlier. Once the technical problems were apparently solved, the Soviet ICBM program accelerated quickly.

Later Soviet Strategic Nuclear Force Developments

In 1965, the U.S. had 854 ICBMs and the Soviets had approximately 270. By the time of the SALT I agreements, the Soviet force had increased to 1,618, while the U.S. force only increased to 1,054. Today, the Soviet Union's ICBM force consists of some 1,400 silo and mobile launchers with over 6,100 warheads on them. The trend was similar in the SLBM area. Today, the Soviet SLBM force consists of about 944 missiles carried on 62 strategic submarines. The number of warheads on the SLBMs is quickly approaching 3,000. Figures 1 and 2, below show the relative trends in ICBM and SLBM deployments. (42:24-31) They also illustrate the effects the SALT agreements had on these deployments.

ICBM DEPLOYMENTS

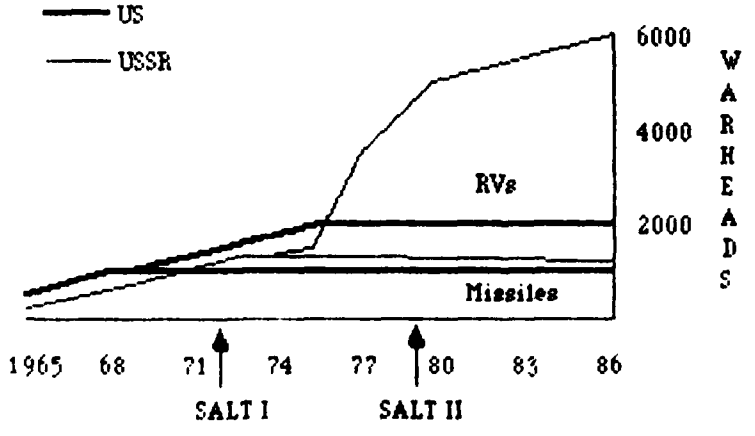

Figure 1

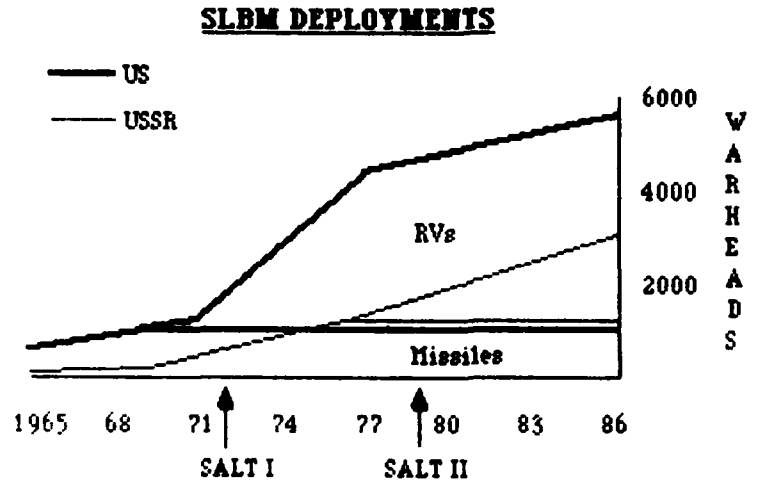

Figure 2

But, for the purposes of this paper, the characteristics of the missile forces are more important than their numbers or the numbers of warheads. As the above figures show, most of the U.S. strategic nuclear missile warheads are on SLBMs. These currently all have low yield-accuracy combinations which makes them unsuitable for attacking hardened missile silos or command pots. Therefore their purpose would be primarily for destroying "soft targets" like cities. The U.S. ICBMs also currently have yield-accuracy combinations that would only be marginally effective against some of the newly hardened Soviet missile silos.

The Soviet strategic nuclear missile warheads, on the other hand, are primarily on ICBMs. These have sufficiently higher yield-accuracy combinations than their U.S. counterparts. As a result, they are effective "hard target" killers, and therefore suitable for attacking U.S. missile silos. ICBMs are also more vulnerable than SLBMs to attacking forces and therefore the temptation is to launch them as quickly as possible.

A number of unclassified analyses have examined the implications of these characteristics in terms of war fighting. Assuming a case were the U.S. launches its ICBM force first and the Soviets "ride out" the attack and do not launch immediately,

which is counter to both U.S. and Soviet policies, the Soviets would still be left with a sizeable surviving ICBM force, as well as their SLBM force. If the situation were reversed, and the U.S.S.R launched first, most of the U.S. ICBM force would be destroyed and the U.S. would only have SLBMs left, suitable only for city "busting" (until the Trident D-5 missle is deployed). If the U.S. wanted to protect its ICBM force in this latter case, the only alternative would be to launch under attack (LUA) This tactic, while operative in Soviet strategy, has been resisted in the U.S. because of its reliance on foolproof tactical warning systems and because the decision to launch must be made within a few minutes after an attack is first detected. (32:177)

Whereas most of the Soviets nuclear explosive power is on their ICBMs, most of the U.S. nuclear yield is in the bombs carried by the bomber force. Bombers, however, do not play a major role in a counterforce scenario. First, there are many uncertainties in the survivability of bombers during base escape and penetration. Secondly, once launched, the bombers have a limited loiter capability before they must return to base for maintenance. If their is a false alarm, followed by a real attack a day later the bombers could be severely degraded. And finally, unless the bombers are launched on strategic warning rather than on tactical warning, the bombers would not arrive at their targets until many hours after the Soviet ICBMs have been launched. The best the bombers could accomplish in this case would be to destroy any reserve ICBMs still left unlaunched or to prevent the Soviets from reloading empty silos.

Consequently, as this brief analysis illustrates, today's U.S. missile forces appear to be adequate mainly for attacking soft military targets, the population and economy of the Soviet Union. Their limitations in destroying Soviet ICBMs makes them unable to significantly limit damage to the U.S. This is consistent with the U.S. doctrine of "mutual assured vulnerability". The Soviet forces, however, appear to be structured in a manner very consistent with their stated doctrine and strategy, discussed earlier.

which rejects any intentional vulnerability of their forces, but instead stresses war-fighting and damage limiting. The Soviet ICBMs can be launched rapidly and are capable of destroying a significant portion of the U.S. ICBM force, thereby limiting damage to its own forces. The SLBM and remaining ICBM forces would then be available for attacking U.S. war supporting facilities and for a strategic reserve, which is also called for in Soviet nuclear doctrine. (32:177)

The U.S. decisions to deploy the Peacekeeper ICBM and the D-5 SLBM, with their increased yield-accuracy combination of its warheads, and to development a small mobile missile, which is more survivable, would redress the above imbalance. However, this is a belated reaction which only duplicates the types of forces the Soviets have either already deployed or are currently deploying.

Soviet Defensive Capabilities

A major tenet of Soviet nuclear doctrine, as described in chapter four, is defense of the homeland against an attack by nuclear weapons. The Soviets have recognized that having a credible defense adds to deterrence but, more importantly, they firmly believe that defensive measures will degrade the effectiveness of a nuclear attack. (32:40) Both the U.S. and the Soviet Union began to take measures, during the 1950s, to protect the population against an attack by the other. But while, in the U.S. all defensive measures, especially civil defense, have long ago been discarded, in the Soviet Union, they have been pursued with the same straight-mindedness and emphasis that has characterized their nuclear force development In fact, since the early 1960s the development of defensive capabilities has been given emphasis equal to the development of offensive systems In the Soviet view, the war survival capability of a country adds to the overall balance of forces. Ironically, the major impetus in this area came at the same time detente' was beginning, during the mid 1960s. (5:16)

The Soviet development of comprehensive defensive measures have been " to protect the population during a war, increase the stability of the national economy in wartime, and eliminate the consequences of an attack on peaceful cities and villages " (43:3)

Soviet defensive programs fall into two categories, active defense and passive defense The active defense measures include radio-technical forces (warning radars) anti-aircraft surface-to-air missile squadrons, interceptor aircraft and ballistic missile defenses (ABM). Today the Soviets have over 10,000 air defense radars and over 9,000 strategic surface-to-air missiles deployed to intercept invading bombers and cruise missiles. They also have more than 1,200 dedicated interceptor aircraft, and can draw upon 2,800 additional interceptors from the Soviet Air Force for use in strategic defense. (42:54)

The Soviets also possess the only operational ABM system, deployed around Moscow. This system was deployed in the early 1970s and has since been upgraded and expanded to the limit allowed by the 1972 ABM Treaty, which allows 100 ABM launchers deployed to protect a single location. (42:42-43) Today, there are indications that the Soviets are planning to deploy a nationwide ABM system. This supposition is based on the Soviet development of ABM components, the construction of nine new large phased array radars and the testing of surface-to-air missiles in an ABM mode. (42:45)

An interesting and revelant aspect of the Soviet's current ABM system is the fact that it is deployed around Moscow. When the development of ABM systems began, the U.S. chose to deploy its SAFEGUARD system to protect its ICBM forces. The goal was to protect its retaliatory forces but to leave Washington, D.C. and other cities vulnerable to attack. This was consistent with the U.S. deterrent policy of mutual vulnerability. The Soviet deployment indicates a different approach; one which they have always advocated. First, they apparently were not concerned about the vulnerability of their

ICBMs since presumably they would be launched before attacking missile could destroy them. Second, they put priority in protecting the leadership and the command and control facilities located in the Moscow area. And third, they chose protection of a city over missle fields, thereby demonstrating their rejection of the mutual vulnerability concept. This deployment also provided some propaganda fallout, especially internally, since the Soviet could claim that protection of the population took priority.

The Soviet passive defense systems are even more comprehensive and more telling in terms of how Soviets perceive nuclear weapons than are the active ones. These passive measures consist primarily of methods to protect the leadership and an extensive civil defense program to protect the population and to aid in the social and economic recovery and reconstitution of the nation.

Leadership protection programs in the Soviet Union have existed since the October Revolution, when the revolutionary leaders rode around the countryside in armored trains. Today, the protection and survival methods are even more elaborate. The top polical-military leadership are provided with deep underground bunkers, specialy equipped trains, aircraft and road mobile military command posts. Even the lesser ranks of the leadership are provided with some protection in case of war. Nearly every major urban area has specially built shelters for the local leadership. The Soviets have also taken to building most of the new facilities related to command and control and communications either completely underground or with large portions underground or bunkered. (44:90-93)

The Soviet civil defense system is equally comprehensive, if not more so. Soviet war-survival doctrine calls for protection of the population and economy as the most essential factor that will determine victory in a nuclear war. (45:77) As the Soviet civil defense manual states:

> Civil defense is a system of national defense measures directed toward protecting the population, creating necessary conditions for maintaining

> operational stability of the national economy in wartime, and, if the enemy uses weapons of mass destruction, performing rescue and urgent emergency-restoration work. (45:xvii)

The importance of civil defense is perhaps best illustrated by its status in the Soviet hierarchy. In 1972, Colonel General Altunin, the chief of the USSR Civil Defense was elevated to the post of Deputy USSR Minister of Defense and later given a seat on the Politburo.

Doctrine also requires that preparations for war be made well ahead of time.

> Thus, by preparing the defense of the cities, population points, and national economic installations in advance, executing civil defense measures, and instructing the entire population on how to protect themselves against weapons of mass destruction, it is possible not only to reduce the number of casualties, but also to preserve items of material and cultural value, and to guarantee uninterrupted work in rear areas. (45:11)

Thus, civil defense is not just the protection of civilians, but covers the entire spectrum of maintenance of industrial production, food distribution,repair of damaged military and industrial facilities, and clean-up activities. Civil defense activities are organized nationwide in every factory, on every farm, in every school, and in every residential unit. Every citizen is assigned civil defense related duties he or she will have to perform if war comes. (45:11-25)

The official civil defense manuals discuss three major programs, civil defense training of the population, sheltering of the population, evacuation and dispersal of the population, and dispersal and protection of vital industrial and military facilities.

Civil defense training of the population starts in the school system and continues throughout the lifetime of an individual. Participation is considered a patriotic duty. The education is comprehensive and ranges from a realistic discussion of the effects of nuclear weapons and decontamination procedures, to the construction of temporary shelters and the protection of livestock and food supplies. There are periodic mandatory refresher courses and numerous excercises. (45:26-57,323-339) This training serves two primary purposes: to instill in the population that nuclear war

is survivable and thereby maintain the people's will to fight; and to significantly reduce losses, especially among those portions of the population that will be essential for preservation and recovery of the Soviet system. (41:77,193)

One method of protecting the population from the effects of nuclear weapons is through sheltering. The Soviet civil defense manuals identify four types of civil defense shelters provided "to protect the working shifts, formations, and population..." These include: "blast shelters with industrially manufactured filtering equipment; blast shelters with simplified filtering equipment; fallout shelters prepared in peacetime...; and fallout shelters constructed in wartime of available materials. (45:124) The prepared shelters are provided in urban areas, in industrial plants and at relocation areas. Civil defense was taken into account when the Soviet subway systems were being built. Not only are they much deeper than their counterparts in the U.S. but many of the deeper stations are also equiped with blast doors. (41:119-125) In addition, individuals are provided with gas masks, either at work or at their housing administration, and are continually excercised in its use. Protective clothing is provided to the leaders of the civil defense formations, as are first-aid kits, decontamination kits, etc. (41:78-80)

Urban evacuation and dispersal are another major means by which the population will be protected. The civil defense manual states that:

> Under conditions of a nuclear war, civil defense must solve the problem of defending the population through a series of measures, which include dispersal and evacuation of people from cities that are likely to be targets of missile strikes by the enemy. Evacuation should be made to areas outside the metropolitan areas, and evacuees must be sheltered there in protective structures and also given individual means of protection. (45:72)

Popular discipline and training and extensive preparation, combined with a mature and capable public transportation system makes the relocation of the population a more credible prospect in the Soviet Union than it would be in the U.S. In

addition, the Soviets have organized private car owners as well as taxicabs into their evacuation plans. Major traffic jams on the main evacuation routes, as might occur in the U.S., are less likely in the Soviet Union partly due to these plans and partly due to the relatively fewer numbers of cars in private hands. (41:100)

The Soviets draw a clear distinction between the concepts of dispersal and evacuation.

> *Dispersal* is the term used of an organized transport from major cities and the distribution in the outer zone of workers and employees of national industrial enterprises that continue to function within these cities in wartime. ... These people must work within the city but return to the outer zone to rest.
>
> *Evacuation* refers to the removal from a large city to the outer zone of that portion of the population which does not work in industrial enterprises within the city... Some city enterprises can also be evacuated, including organizations, offices, and educational institutions whose activities during the war period can be transferred to rural areas. (45:72)

The attractiveness of this plan, is that dispersal can be accomplished with a smaller disruption of the economy. The Soviets would therefore be less likely to wait until the last minute to disperse the critical population if conditions threatened a war.

In addition to dispersal of the working force, the Soviet Union has adopted other measures to increase the probability that the economy will not collapse if nuclear war occurs. These include dispersal and hardening of industry and the preparation of stockpiled supplies, including food stuffs and agricultural seed. While there is little evidence that large factories have been moved out into the countryside, the Soviets have attempted to decentralize industry. The primary approach has been to site new industrial plants in small or medium size towns. In the energy producing area, the trend has been to establish new plants in Siberia. According to the Soviets, this brings the plants closer to the source of the energy, oil natural gas, coal, etc. but it also improves the war-survival capability of the Soviet economy. (41:137-139)

Soviet experiences during World War II provides them with some confidence

that the dispersal of people and industry is feasible. During the war years, over ten million people and 1,520 large factories were moved toward the Ural Mountains, into Siberia and into Central Asia. Energy production, destroyed in the west by Germany, also had to be totally reinitiated in the east. (44:92)

Soviet hardening of industry basically uses a common sense approach. Only industrial facilities outside the predicted damage areas are hardened. This hardening, ideally is incorporated in the design of the buildings, where feasible. Others buildings are either reinforced internally using additional support beams, protected by additional walls or berms, or are partially covered with earth. (45:185) Since the machinery is more important than the buildings themselves, an attempt is made to put most of it below ground level. In addition, procedures have been established to cover up the equipment with soil, plastic, or other compactible materials. Water, power, and communications lines are all buried where possible. (45:190-192)

This discussion of Soviet defensive measures has been purposely more detailed than the section on Soviet offensive capabilities. And yet is has only scratched the surface of the extensive and extreme resources that the Soviets have devoted to the survival of their nation as a political and an economic entity. Civil defense and economic survival permeates nearly every aspect of life in the Soviet Union. For example, urban planning takes into account not only the need to disperse population and industrial densities, but also the need for evacuation routes, relocation sites, and decontamination facilities. Therefore, civil defense appears to be more than a just psychological ploy to placate popular anxiety about war, or a "Potemkin Village" for deterrence purposes only. The cost of the civil defense program has been staggering. And this cost has been and is being paid at the expense of their already weak economy. The seriousness, comprehensiveness and sacrifice with which civil defense has been approached indicate that the Soviets fully intend to rely on it and the other defensive

measures to insure the continued survival of the Soviet State even after a nuclear war.

The emphasis that the Soviet Union has placed on civil defense since the 1950s contrasts significantly with the U.S. position on the subject. Today, the U.S. has no viable civil defense system, no programs to educate the public about nuclear effects or on how to survive in case of nuclear war, and no plans to reconstitute or recover the economy. Even if these existed, it is doubtful that they would be accepted by the public or the press. During the height of the cold war, when President Kennedy requested a special appropriation for a new start on a civil defense shelter program, a national atmosphere of panic and overreaction ensued and was naturally played up by the media. (25:228) More recently, any attempts by the Federal Emergency Management Agency (FEMA) or by the President to introduce the idea that lives could be saved in nuclear war if appropriate measures were taken ahead of time, have been ridiculed in Congress, in literature, and in the press. (46), (47) The Soviet interpretation of this is obvious, the U.S. is willing only to threaten nuclear war, but is not committed to fighting one.

CHAPTER VI

CONCLUSIONS

Western observers have never been able to understand the reasons for the growth of Soviet military forces in light of American positions on nuclear war, deterrence and arms control. In 1968, then Secretary of the Air Force, Harold Brown, questioned the reasons for the Soviets' continued military build-up after the U.S. forces had leveled out. Ten years later, Secretary of Defense Harold Brown admitted that he still could not understand the still continuing Soviet buildup. In 1974, Secretary of State Henry Kissinger marveled at the Soviet drive for superiority when he said, "What in the name of God is strategic superiority? ... What do you do with it?" (5:6)

Similar questions are still being asked today. Secretary of Defense Casper Weinberger posed the same question in a different way, "...we must pay careful attention to how Soviets might see the role of nuclear forces. What are <u>their</u> measures of effectiveness? What would be <u>their</u> criteria of success?" (48:11-10)

The major reason for these questions is that most Americans appear to see nuclear weapons and nuclear war from their own perspectives which have evolved through a uniquely American experience and history. Since the Soviets have not shared these experiences and history, it should not be surprising that they do not share the same perceptions.

The American view, at least as it is commonly presented in the media, can be summarized by the following excerpt form Robert W. Malcolmson's book,

<u>Nuclear Fallacies:</u>

> First, nuclear weapons permit not merely the defeat of an adversary state, they make possible the total annihilation of that state and its society. . . .
> Second, not only is there no credible defense against nuclear weapons it is virtually inconceivable that any such defense will ever exist. . . Universal vulnerability is now a fundamental fact of life.
> Third, when nuclear weapons are possessed in abundance by at least two states.

their use by any nuclear power is potentially suicidal...

Fourth, if nuclear weapons were used on a large scale, the natural environment might be so severely damaged that this planet would become largely uninhabitable- perhaps even totally uninhabitable - for most complex forms of life, our own specicies included. (49:10-11)

President Reagan has also echoed this theme. "A nuclear war cannot be won and must never be fought." (2:14) Consequently, the U.S. nuclear deterrent policy of "mutual assured vulnerability" is based on these perceptions.

Soviet perceptions, on the other hand, appear to be vastly different, as this paper has sought to demonstrate. The examination of Soviet military literature shows that the Soviets address nuclear weapons and nuclear war seriously, and from their perspective, objectively. Their doctrine and strategy explicitly deny the above described American views, especially that use of nuclear weapons is suicide. In the Soviet view, nuclear weapons are only another evolution of conventional weapons and their use should not necessarily differ from that of conventional weapons, as long as allowances are made for their tremedous power and destructiveness. Likewise, nuclear war, like conventional war, is a valid instrument of political goals. This view of the use of nuclear weapons is in some ways similar to the Soviet view of the use of chemical weapons. If U.S. government reports are true, the Soviets have not hesitated to use chemical weapons if they determined that the situation called for them.

From the Soviet perspective, a deterrent policy of mutual assured vulnerability is defeatist and therefore totally not acceptable. While deterrence is desireable, it must be approached from a position of strength not vulnerability. Being prepared to fight and to win is a much more practical application of strategy and military force than to live in fear that deterrence will fail. It follows, therefore, that if war occurs, it must be fought offensively and decisively, from a position of as much superiority as possible. Every advantage, including surprise must be sought. Consequently, in the Soviet view, strategic deception and taking the initiative with a preventive or preemptive attack are

valid tactics.

Because they recognize that a nuclear war, while devastating, would not necessarily mean the end of the world, the Soviets have been preparing very comprehensive defenses. These include active defenses to limit damage and passive defenses to increase the chances of survival of the population as well of the entire state as a viable entity.

As a result of their own mindset, many in the West refuse to take these Soviet doctrines and strategies about the need for nuclear superiority, war-fighting, and war-survival seriously in spite of the evidence in Soviet military writings and in Soviet preparations. And of course, the Soviets are willing to oblige by reinforcing these misconceptions through a policy of deception which they have used since the beginning of the nuclear age as described in chapter 5.

However, the confirmation of the validity of the Soviet nuclear doctrine, as expressed in their military writings, is its consistency and constancy over the years, and the fact that the Soviet nuclear force structure and extensive defensive preparations have evolved very much in line with this doctrine.

Finally, since fighting and surviving a nuclear war will fall on the shoulders of the people of the Soviet Union, it is important to understand their perceptions and what motivates them, as well as the perceptions and motives of the Soviet leadership.

The Soviet people have had a very violent and tragic history. This has made them value security above all else. But since the Marxist-Leninist Ideology tells them that conflict with capitalism is inevitable, it is not surprising that they whole heartedly support the need for a large military. The greater their military superiority, the better the prospect for deterrence or, if deterrence fails, the better the chance for victory in war.

The Soviet people are also very patriotic. Consequently, they are willing to do

whatever is necessary for the defense of their homeland. Being politically passive they rely on the leadership to tell them what is necessary for defense and to make their decisions for them in terms of foreign policy. A Soviet citizen may question, in his mind, the Soviet Union 's policy in Afghanistan, for example, but he will not hesitate to go there and fight if he is called upon for service.

Finally, indoctrination plays a major role in molding the Soviet people's perceptions about nearly everything, including about nuclear war. The people are taught that they must be prepared to fight and they are given extensive military and civil defense training, which includes down to earth education about nuclear weapons, their effects, and how to protect themselves from them. Indocrination also reinforces the people's characteristics of patriotism, discipline and loyalty because these make it easier for the leadership to control the population, both in peacetime as well as in war.

Some insight as to how the Soviet people may react in a nuclear war situation can be gleaned from the events surrounding the Chernobyl accident. While the western media, screamed panic and claimed that there were thousands of deaths at the scene, and that thousands more would follow (in reality the total deaths numbered about twenty) , the Soviets went about trying to salvage the situation. First, there was no panic in the immediate vicinity of the accident site. Thousands of people were evacuated, but the move was orderly. Second, while there was concern, there was no panic and no hysteria in other Soviet cities, especially those downwind from Chernobyl. And third, the cleanup operation was undertaken immediately, and when finished, work continued on the other reactors in the complex.

This was a good demonstration of the Soviet approach to disasters, everything necessary was done in a relatively orderly fashion. The people responded to orders from those in charge in a disciplined manner and did just what had to be done. One can just imagine what the response in the U.S. would have been in a similar circumstance.

The possibilities of innumerable casualties and societal disruption do not seem to have the same impact in the Soviet Union as they does in the U.S. This is perhaps partly due to the collective mindset of the Soviet population, where the fate of the State is more important than the fate of the individual. Or it may be due to the fact that the Soviets have come to view death as a more common daily risk. They are constantly reminded that they lost over twenty million people in World War II. They also lost almost as many in Stalin's purges before and after that war. Today, hundreds still die every year of disease and malnutrition in their prison camps. Unknown numbers have died in past chemical, biological and nuclear accidents, which seem to occur relatively frequently. Therefore it is not surprising that the population is not panic stricken at the thought of nuclear war. Instead, they feel assured that their government is doing everthing possible to prevent war and to protect them if war happens.

Taken all together, Soviet military doctrine, the structure of the Soviet nuclear forces, the comprehensive defense preparations and the mindset of the Soviet people, make a compelling argument that the Soviet Union has been preparing to fight and survive a nuclear war and to emerge victorious. This is not to say that the Soviets are ready to start one, but that from their perpective, a nuclear war is possible and they need to be ready to fight and win a nuclear war, not just hope to deter it.

While the intentions of the current Soviet leadership are beyond the scope of this analysis, the following conclusions can be drawn. Based on their past actions, it appears that the Soviet leadership wants to maintain its freedom of action in its foreign policy. The U.S. has tried since 1945 to keep the Soviet Union contained by using the threat of nuclear destruction. The Soviet response appears to be an attempt to achieve such superiority in the correlation of forces, that the U.S. is deterred from interfering in Soviet adventures in the future.

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